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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/542,714

07/20/2005

Kazuhiro Haniya

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12/05/2008

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EXAMINER

PILKINGTON, JAMES

ART UNIT

PAPER NUMBER

3656

MAIL DATE

DELIVERY MODE

12/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,714	Applicant(s) HANIYA, KAZUHIRO	
	Examiner JAMES PILKINGTON	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings, particular Figures 1, 3 and 4, as amended are objected to. It appears that the Applicant intended to submit the marked up copies of Figures 1, 3 and 4 as an exhibit and not as replacement sheets as indicated at the top of each page. The Applicant is required to submit corrected figures with out the exhibit labels or amend the figures so that they comply with 37 CFR 1.87(l).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 2, 3 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 2 and 3 recite that the smaller gear is arranged within an angular range from the rotational center of the larger gear of plus or minus 35 degrees. The specification does not contain support for the gear being within this range. The specification only provides support for the rotational center of the small bear being within this range which means the teeth of the gear could extend out of this range.

Claim Rejections - 35 USC § 102

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsai, USP 5,245,263.

Re clm 1, Tsai discloses a reduction device of an industrial robot comprising a robot base (O) installed in an XY plane of XYZ orthogonal coordinates, a rotating barrel portion (1st arm link) rotatably attached to the robot base (O), and a lower arm (2nd link) of which one end is axially supported by the rotating barrel portion via a front/rear shaft (shaft connected to the 2nd link), pivoting back and forth to the robot base (O) around the front/rear shaft), a large gear (to the right of 5) fixed to the robot base (O) and a small gear (at 2) meshing with the large gear and axially supported in the rotating barrel portion (1st arm link) wherein the small gear (at 2) is arranged within an angular range from the rotational center of the large gear, said angular range being plus or minus 35 degrees from imaginary reference plane, and wherein said imaginary references plane is defined as a plane parallel to a lower arm rotational plane, orthogonal to the front/rear shaft, and including a rotational axis of the large gear (the plane extends perpendicular into the page).

Re clm 2, Tsai discloses a reduction device of an industrial robot comprising a robot base (O) installed in an XY plane of XYZ orthogonal coordinates, a rotating barrel portion (1st arm link) rotatably attached to the robot base (O), and a lower arm (2nd link)

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in which one end of which is axially supported by the rotating barrel portion (1st link) via a front/rear shaft (shaft connected to the 2nd link), pivoting back and forth to the robot base (O) around the front/rear shaft), a small gear (8) fixed to the robot base (O) and a large gear (above 1) meshing with the small gear and axially supported in the rotating barrel portion (1st arm link) wherein the small gear (8) is arranged within an angular range from the rotational center of the large gear, said angular range being plus or minus 35 degrees from imaginary reference plane, and wherein said imaginary reference plane is defined as a plane parallel to a lower arm rotational plane, orthogonal to the front/rear shaft, and including a rotational axis of the large gear (the plane extends perpendicular into the page).

Re clm 3, Tsai discloses a reduction device of an industrial robot comprising a robot base (O) installed in an XY plane of XYZ orthogonal coordinates, a rotating barrel portion (shaft off of the 1st link which extends into the base and connects to the second gear above 1 in the base and the left side of the first arm link with motor 3) rotatably attached to the robot base (O) to rotate around a rotating shaft (shaft of first gear above 1) , a lower arm (1st arm link) of which one end of which is axially supported by the rotating barrel portion, and an upper arm (2rd arm link) of which one end of which is axially supported by the other end of the lower arm (1st arm link), a large gear fixed to the lower arm (gear to the right of 5), and a small gear (at 5) meshing with the larger gear and axially supported in the rotating barrel portion, wherein the small gear (8) is arranged within an angular range from the rotational center of the large gear, said angular range being plus or minus 35 degrees from imaginary reference plane, and

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wherein said imaginary references plane is defined as a plane parallel to a lower arm rotational plane, orthogonal to the front/rear shaft, and including a rotational axis of the large gear (the plane extends perpendicular into the page).

Re clm 6, Tsai discloses that a center portion of the large gear (labeled as A2 in Figure 6d) includes a communication hole (for the shaft connected to A1 to pass).

Response to Arguments

6. Applicant's arguments filed 10/10/08 have been fully considered but they are not persuasive.

7. The Applicant argues that Tsai does not disclose the newly added claim limitation regarding angular location and imaginary reference plane.

Tsai does indeed disclose an imaginary reference plane that meets the locational limitations defined in the claims. The claim first states that the plane is parallel to a rotational plane of the lower arm, however the claim does not define if the rotational plane is the plane of the bottom of the arm or the plane of the rotational axis of the arm, both are rotational planes of the arm one being vertical and the other horizontal.

Second the claim requires that the plane be orthogonal to the claimed shaft, in all claims the shafts being used are vertical and the imaginary plane is horizontal and extending into the page. Third the claim requires that the plane include the rotational axis of the large gear and not the rotational shaft of the large gear, therefore the plane can be at any vertical height on the page since the rotational axis of all the large gears used above is vertical and will at some point intersect the imaginary plane.

The claim also does not define where the starting point for measuring the angle is and therefore as long as the gear is in the plane the angle can be measured from any point that would include the gear.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES PILKINGTON whose telephone number is (571)272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES PILKINGTON/
Examiner, Art Unit 3656
11/25/08

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656